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FISHERY COMMODITY SITUATION AND OUTLOOK 1978/79

by

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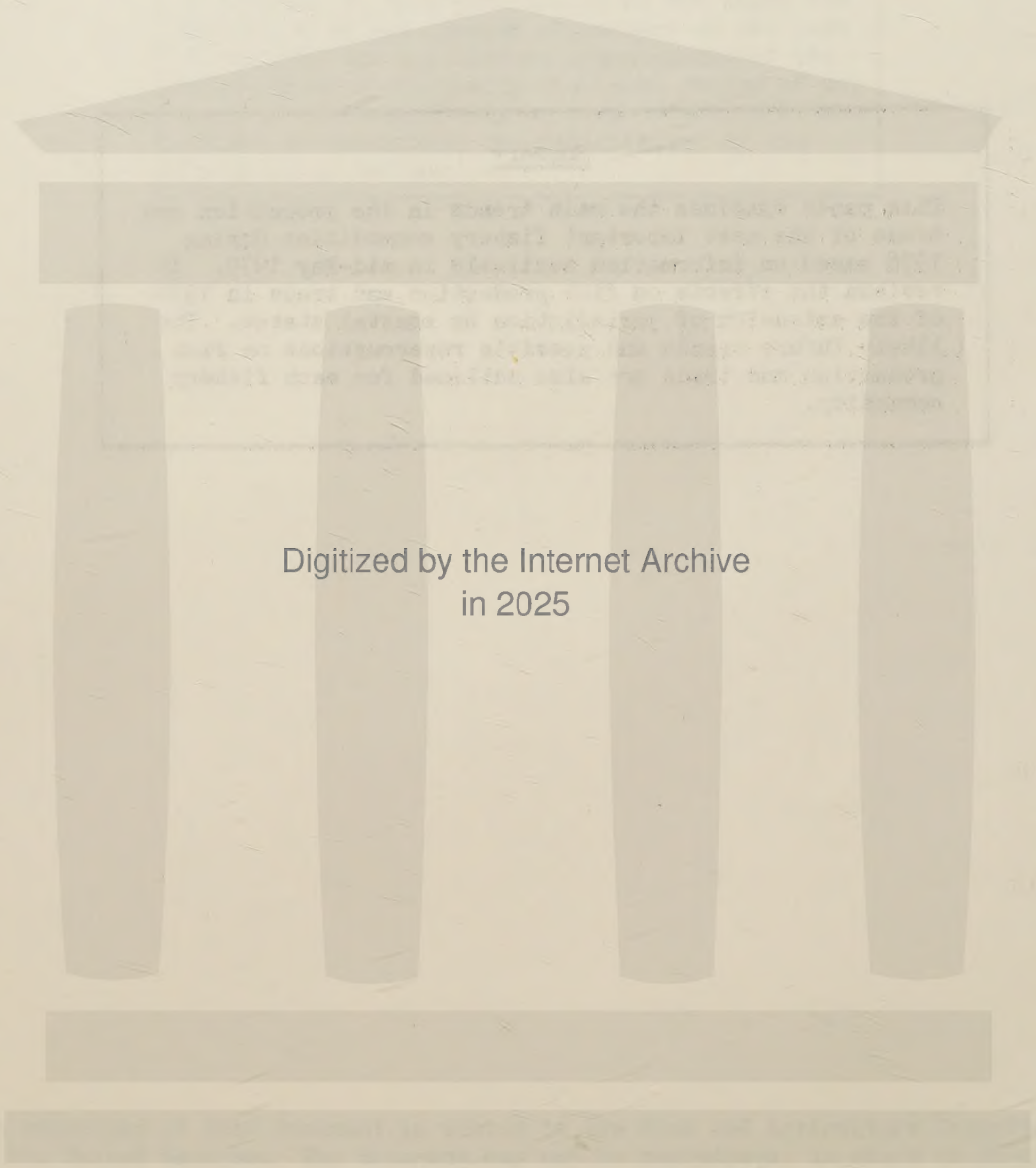
Summary

This paper examines the main trends in the production and trade of the most important fishery commodities during 1978 based on information available in mid-May 1979. It reviews the effects on fish production and trade in 1978 of the extension of jurisdiction by coastal states. The likely future trends and possible repercussions on fish production and trade are also outlined for each fishery commodity.



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INTRODUCTION

1. Two significant developments in commercial fisheries have been associated with the introduction of 200-mile exclusive economic zones. One, a proliferation of joint ventures, had already begun prior to the wide acceptance of the new regime, but the other, a rapid expansion in international trade in fishery commodities, was not so generally expected. Over the past two years and most notably in the last ten months, international trade in fish and fish products has grown considerably in both volume and variety.

2. A feature of this expansion in trade has been the increasing involvement of countries that have not previously featured greatly in it. A number of developing countries have benefited from this trend, but the greatest beneficiaries have been developed countries such as the U.S.A. and Canada which in 1978 began financing the promotion of fish exports. The expansion of fish exports has also been helped by easier access to some markets in order to keep the fish processing industries supplied with raw material. The European Economic Community (EEC), for example, suspended or relaxed tariffs on imports of fishery products from third countries.

WORLD FISH PRODUCTION IN 1978

3. Preliminary figures available in May 1979 indicate that the world catch of fish in 1978 was 74.8 million metric tons. Past experience suggests that this may prove a conservative estimate because data are still awaited from some countries where fisheries are known to have developed. The final figure for 1978 may well exceed 75 million tons, surpassing the previous record production (74.9 million tons) of 1976.

4. Fish production in 1978 declined in developed countries and centrally planned economies by 2 percent and 4 percent respectively, but developing nations increased their total catches by 9 percent (Table 1). Most of the improvement occurred in Latin America, particularly Argentina, Chile, Mexico and Peru, and in Asia, notably India, Philippines and Malaysia. The increased production in these countries was primarily of fish for direct human consumption, but some of the increases in Chile and Peru went into fish meal. Fish production in Ghana, Senegal and the Republic of Korea declined.

5. In the developed world, the catch of Norway declined by almost 25 percent (830 000 tons), largely because increases in the catches of blue whiting for reduction purposes did not compensate for the failure of the capelin fishery. The overall total of the developed countries - and indeed the total world catch - was strongly influenced by this situation. Other countries, particularly Canada, Iceland and the U.S.A., increased their production appreciably. In Japan, reports on landings from 66 major fishing ports indicate a slight increase, about 100 000 tons, on the previous year.

6. In the EEC continued disagreement over a common fishery policy hindered the conclusion of fishing agreements with third countries. Nevertheless, the United Kingdom increased its overall catch by 5 percent through a dramatic expansion of mackerel fishing in its coastal waters. Most of the mackerel catch was exported and therefore failed to compensate for the loss of domestic catches from distant-water grounds.

7. Fish production of the U.S.S.R. continued to decline in 1978, but Poland's remained at the level of the previous year.

INTERNATIONAL TRADE IN FISHERY COMMODITIES DURING 1978

8. The U.S. dollar value of world exports of fishery products increased by 15 percent in 1978 (Table 2). Compared with 1970/72, world trade in fishery products has trebled. Part of this increase is attributable to higher prices, but trade volumes also expanded, particularly in commodities such as frozen fish and crustaceans. During 1978, international prices of some commodities such as lobster increased. Other prices, such as that of frozen cod fillet blocks, remained stable. Some fishery commodities, among them frozen tuna and fish meal, could be sold only below the price level ruling in 1977 (see table in Annex).

Table 1

World catch of aquatic organisms in all inland and marine waters *

	1970–1972	1973	1974	1975	1976	1977	1978	Change 78–77
	'000 tons							%
WORLD CATCH	69 640	67 680	71 343	71 004	74 907	73 861	74 880	+1.4
Developed countries	26 016	27 172	27 068	26 383	27 979	28 224	27 700	-2
North America:	4 181	4 015	3 966	3 919	4 308	4 357	4 558	+5
United States	2 898	2 858	2 929	2 898	3 176	3 102	3 200	+3
Canada	1 283	1 157	1 037	1 021	1 132	1 255	1 358	+8
Western Europe:	11 108	11 475	11 416	11 106	12 158	12 296	11 521	-6
EEC:	4 632	4 799	5 162	4 901	5 070	4 884	4 850	-
Denmark	1 357	1 465	1 835	1 767	1 912	1 807	1 750	-3
United Kingdom	1 114	1 154	1 106	996	1 083	1 004	1 050	+5
France	779	814	808	806	806	760	730	-4
Germany, Fed. Rep. of	513	478	526	442	454	432	410	-5
Others	869	888	887	890	835	881	910	+3
Norway	3 082	2 987	2 645	2 550	3 435	3 460	2 626	-24
Spain	1 526	1 578	1 510	1 515	1 476	1 455	...	...
Iceland	715	902	945	995	986	1 374	1 550	+13
Portugal	449	478	430	375	346	310	...	...
Others	704	731	724	770	845	813	795	-2
Other developed countries:	10 553	11 486	11 479	11 185	11 326	11 360	11 410	-
Japan	9 863	10 748	10 805	10 524	10 662	10 763	10 760	-
South Africa	683	711	650	637	638	603	625	+4
Israel	27	27	24	24	26	24	25	+4
Oceania:	174	196	207	173	187	211	...	...
Australia	113	130	138	100	111	128	120	-6
New Zealand	61	66	69	64	76	83	...	...
Developing countries	25 560	20 493	23 518	22 735	24 946	24 408	26 660	+9
Africa:	3 540	4 030	4 031	3 710	3 545	3 394	3 398	-
Tanzania	175	168	171	192	239	261	287	+10
Senegal	240	316	357	363	361	289	276	-4
Morocco	242	400	288	229	286	261	...	...
Namibia	609	710	840	761	574	404	415	+3
Ghana	229	224	220	255	238	250	230	-8
Others	2 045	2 212	2 155	1 910	1 847	1 929	...	...
Latin America:	12 347	5 405	7 646	6 856	8 609	7 087	8 689	+23
Argentina	227	302	298	229	282	393	480	+22
Peru	9 263	2 329	4 145	3 447	4 343	2 530	3 325	+31
Chile	1 178	691	1 158	929	1 407	1 285	1 750	+36
Brazil	570	704	740	772	801	842	884	+5
Mexico	424	479	442	499	629	674	800	+19
Others	685	900	865	980	1 147	1 363	1 450	+6
Near East	740	748	875	845	813	945	920	-3
Asia and Far East:	8 830	10 169	10 814	11 181	11 809	12 824	13 477	+5
Korea, Rep. of	1 086	1 684	2 024	2 134	2 405	2 419	2 354	-3
India	1 748	1 958	2 255	2 325	2 400	2 540	2 760	+9
Indonesia	1 248	1 265	1 336	1 390	1 483	1 572	1 655	+5
Thailand	1 570	1 679	1 516	1 553	1 660	2 187	2 264	+4
Philippines	1 122	1 304	1 371	1 443	1 393	1 511	1 712	+13
Malaysia	356	445	526	474	517	619	724	+17
Others	1 700	1 834	1 786	1 859	1 951	1 976	2 008	+2
Other developing countries	103	141	152	143	170	158	...	...
Centrally planned economies	17 248	19 095	19 955	20 938	21 090	20 151	19 440	-4
Asian centrally planned economies	8 739	9 279	9 379	9 479	9 579	9 579	...	...
China	6 672	6 880	...	...	...	...	...	...
Others	2 067	2 399	2 499	2 599	2 699	2 699	...	...
U.S.S.R. and Eastern Europe:	8 309	9 816	10 576	11 459	11 511	10 572	9 860	-7
U.S.S.R	7 449	8 619	9 236	9 936	10 134	9 352	8 680	-7
Poland	510	580	679	801	750	665	660	-
Others	550	617	661	722	627	555	...	...
Others n.e.i.	816	920	802	948	892	1 078	1 080	-

* Excluding whales

Note: For computation of the total data for the last available year are used.

Table 2

Exports of fish and fishery products

	1970-1972 average	1973	1974	1975	1976	1977	1978 prelim.	Change 78-77
	million U.S.$							%
WORLD TOTAL	3 486	5 540	6 014	6 352	7 874	9 416	10 810[a]	+ 15
Developed countries	2 223	3 684	3 905	3 815	4 811	5 623	6 780	+ 21
North America:	427	776	686	740	971	1 265	1 878	+ 48
Canada	294	491	433	442	599	757	981	+ 30
United States	133	285	253	298	372	508	897	+ 77
Western Europe:	1 268	2 137	2 353	2 330	2 918	3 414	3 844	+ 13
EEC:	587	1 041	1 179	1 185	1 463	1 680	2 029	+ 21
Denmark	201	382	440	427	586	627	729	+ 16
Netherlands	134	208	216	258	280	315	399	+ 27
Germany, Fed. Rep. of	81	139	158	139	181	231	232	0
Others	171	312	365	361	416	507	669	+ 32
Norway	307	514	517	515	655	841	759	- 10
Iceland	126	212	248	243	317	381	491	+ 29
Spain	120	169	209	182	245	236	265	+ 12
Others	128	201	200	205	238	276	300	+ 9
Other developed countries:	440	640	741	615	774	743	851	+ 14
Israel	1	2	2	2	3	4	4	0
Japan	390	554	609	490	649	631	748	+ 19
South Africa[b]	49	84	130	123	122	108	99	- 8
Oceania	88	131	125	130	148	201	207	+ 3
Developing countries	1 046	1 491	1 771	2 011	2 470	3 124	3 361	+ 8
Africa	112	218	237	230	243	230	245	+ 7
Latin America	572	494	704	688	902	1 064	1 250	+ 17
Central America:	116	165	188	233	307	382	420	+ 10
Mexico	80	117	136	161	205	278	300	+ 8
Others	36	48	52	72	102	104	120	+ 15
Caribbean	28	42	58	59	75	77	90	+ 17
South America:	428	287	458	396	520	605	740	+ 22
Peru	319	155	256	213	213	211	240	+ 14
Chile	34	20	54	40	101	107	150	+ 40
Others	75	112	148	143	206	287	350	+ 22
Near East	21	37	44	42	33	37	38	+ 3
Asia and Far East:	271	621	653	934	1 168	1 659	1 692	+ 2
Korea, Rep. of	52	146	169	361	321	697	625	- 10
India	54	96	95	133	193	206	260	+ 26
Indonesia	18	62	89	83	124	153	166	+ 8
Others	147	317	300	357	530	603	641	+ 6
Other developing countries	70	121	133	117	124	134	136	+ 1
Centrally planned economies	217	365	338	526	593	669	...	...
Asian centrally planned countries[c]	92	193	123	254	336	419	...	...
U.S.S.R. and Eastern Europe:	125	172	215	272	257	250	...	...
U.S.S.R.	93	123	162	212	198	195	...	...
Eastern Europe	32	49	53	60	59	55	...	...

a/ Including estimates (1977 data repeated) for the "Centrally planned economies" due to lack of data for 1978

b/ Including Namibia

c/ Excludes China

9. Imports of products for direct human consumption have been responsible for the expansion of fish trade in recent years. In 1978 they amounted to 5.5 million tons, valued at more than U.S.$ 10 billion and equivalent to more than 10 million tons live weight (assuming a conversion factor of 40-50 percent). Trade in fish meal has continued to decline and now accounts for less than 10 percent of the total value of the world trade in fish and fishery products.

10. In recent years, both developed and developing countries have been benefiting from the expansion in trade (Table 3). The share of the developed countries rose in 1978, however, because of high-value exports and a decline in the trade of the centrally planned economies following a loss of access to some fishing grounds now falling under coastal state jurisdiction.

11. Canada has taken over as the major exporter of fishery products, the value of its exports reaching almost U.S.$ 1 billion (Table 2). The second largest exporter is the U.S.A. which augmented its exports, particularly of frozen and canned salmon, by 77 percent. Norway has moved from first to third place. Japan maintains its position in fourth place. A significant expansion in fish exports was also reported for Denmark, Iceland, the Netherlands, Argentina, Peru, Chile and India.

Table 3

Shares in international trade of fish and fishery products (percent of world total)

	Exports			Imports					
	Values			Quantities			Values		
	1970/72	1976	1978	1970/72	1976	1978	1970/72	1976	1978
World	100	100	100	100	100	100	100	100	100
Developed countries	64	61	63	75	72	74	85	85	87
Developing countries	30	31	31	16	18	17	11	11	9
Centrally planned economies	6	8	6	9	10	9	4	4	4

12. Japan continues to import the most fish and fishery products, having spent over U.S.$ 3 billion on these commodities in 1978 - a 30 percent increase over 1977 (Table 4). It displaced the U.S.A. as the leading importer in 1977 and the gap has since widened, helped by the changing U.S.$/Yen exchange rate. The EEC countries imported about U.S.$ 3.3 billion worth of fishery products in 1978 with France, the third largest fish importer in the world, taking 26 percent more than in the previous year.

MAIN FISHERY COMMODITY MARKETS - 1978 SITUATION AND 1979 OUTLOOK

(a) Frozen whitefish

13. In 1977 extended jurisdiction led to uncertainty over supplies of frozen whitefish, but the situation in 1978 was more secure as a result of higher catches of some species, particularly cod, wider acceptance of substitutes and increased supplies of hake fillets and blocks. Cod catches in Canada increased by approximately 20 percent, but were down slightly in Iceland and Norway. The lower catch in Norway did not, however, reduce the availability of whitefish blocks and fillets because smaller quantities were used by the curing industry. In fact, Norwegian exports of frozen whitefish products increased in 1978.

Imports of fish and fishery products

	FISH MEAL*						FISH FOR HUMAN CONSUMPTION						TOTAL FISH PRODUCTS					
	1976	1977	1978	1976	1977	1978	1976	1977	1978	1976	1977	1978	1976	1977	1978	1976	1977	1978
	thousand t			million U.S.$			thousand t			million U.S.$			thousand t			million U.S.$		
WORLD TOTAL	2 196	2 107	2 021	732	941	896	5 217	5 249	5 545	7 672	8 752	10 552	7 995	7 908	8 168	8 622	9 955	11 738
Developed countries	1 432	1 403	1 278	471	651	591	3 767	3 905	4 175	6 639	7 737	9 350	5 749	5 838	6 032	7 314	9 639	10 219
North America:	128	74	40	33	26	12	1 040	1 032	1 109	2 038	2 258	2 425	1 179	1 114	1 159	2 075	2 288	2 444
Canada	1	0	0	0	0	0	72	86	83	184	202	215	73	86	84	184	202	216
United States of America	127	74	40	33	26	12	968	946	1 026	1 854	2 056	2 210	1 106	1 028	1 075	1 891	2 086	2 228
Western Europe:	1 223	1 122	1 097	411	522	508	1 999	2 035	2 175	2 712	3 118	3 847	3 757	3 671	3 828	3 320	3 882	4 616
Denmark	8	11	7	3	5	3	167	182	193	128	169	216	176	195	203	132	175	221
France	60	60	54	21	29	26	320	373	412	514	637	813	397	451	484	541	675	849
Germany, Fed.Rep.of	328	308	277	99	130	111	338	341	344	390	471	589	799	791	759	536	666	762
Italy	98	71	90	31	33	44	249	245	257	354	389	470	354	322	351	388	426	517
Netherlands	61	54	48	19	26	24	132	121	121	142	181	226	310	287	300	202	258	309
United Kingdom	263	219	192	95	105	90	201	202	258	340	363	499	676	606	655	513	556	686
Sweden	68	71	75	25	35	39	84	82	83	167	181	203	162	158	168	196	219	247
Portugal	25	14	12	8	7	6	87	88	69	102	80	51	112	102	81	101	87	57
Spain	4	9	6	1	4	3	129	115	168	150	150	213	137	129	183	153	156	220
Others	308	305	336	109	148	162	292	286	270	425	497	567	634	630	644	549	664	748
Other developed countries:	68	199	134	24	101	69	677	778	830	1 789	2 231	2 953	748	984	976	1 816	2 336	3 032
Japan	60	178	113	19	93	61	660	762	805	1 763	2 201	2 912	722	942	923	1 784	2 296	2 979
Others	8	21	21	5	8	8	17	16	25	26	30	41	26	42	53	32	40	53
Oceania	13	8	7	3	2	2	51	60	61	100	130	125	65	69	69	103	133	127
Developing countries	227	215	253	71	78	95	1 219	1 123	1 118	907	882	996	1 473	1 352	1 386	990	967	1 099
Africa:	15	16	16	6	7	7	466	398	432	300	218	272	483	416	450	307	226	280
Nigeria	0	0	...	0	0	...	85	63	...	123	75	...	85	63	100	123	75	130
Others	15	16	...	6	7	...	381	335	...	177	143	...	398	353	...	184	151	...
Latin America:	78	62	67	22	23	27	212	198	207	168	170	190	306	266	280	197	196	220
Central America:	34	15	15	10	6	6	9	9	13	10	8	13	45	26	30	21	15	20
Mexico	31	12	10	9	5	4	2	2	...	3	1	...	35	16	...	13	7	...
Others	3	3	5	1	1	2	7	7	...	7	7	...	10	10	...	8	8	...
Caribbean:	32	38	40	9	15	16	111	111	110	92	93	94	143	149	150	101	108	110
Cuba	32	38	40	9	15	16	62	62	...	36	36	...	94	100	...	45	51	...
Others	0	0	0	0	0	0	49	49	...	56	57	...	49	49	...	56	57	...
South America:	12	9	12	3	2	5	92	78	84	66	69	83	118	91	100	75	73	90
Brazil	0	0	0	0	0	0	79	65	75	52	54	68	79	65	75	52	54	68
Others	12	9	12	3	2	5	13	13	...	14	15	...	39	26	...	23	19	...
Near East:	51	43	72	21	18	28	96	83	75	60	71	70	149	129	150	82	90	100
Egypt	10	6	12	3	3	4	56	37	...	23	25	...	66	43	...	26	28	...
Others	41	37	60	18	15	24	40	46	...	37	46	...	83	86	...	56	62	...
Asia and the Far East:	83	94	98	22	30	33	414	413	373	352	398	438	504	510	475	377	430	473
Hong Kong	6	8	7	2	3	3	81	76	76	180	212	229	87	84	83	182	215	232
Malaysia (Peninsular)	9	17	17	2	5	5	107	107	107	32	33	38	116	124	124	34	38	43
Philippines	19	17	17	5	5	5	45	46	38	31	30	31	64	63	55	36	35	36
Singapore	48	47	52	12	15	18	84	99	53	57	75	68	132	146	106	69	90	86
Others	1	5	5	1	2	2	97	85	99	52	48	72	105	93	107	56	52	76
Other developing countries	0	0	0	0	0	0	31	31	31	27	25	26	31	31	31	27	25	26
Centrally planned economies **	537	489	490	190	212	210	231	221	252	126	133	206	773	718	750	318	349	420
Asian centrally planned economies	77	90	90	31	47	50	9	12	...	25	19	...	87	103	...	57	67	...
U.S.S.R. and Eastern Europe:	460	399	400	159	165	160	222	209	...	101	114	...	686	615	...	261	282	...
U.S.S.R.	7	15	...	1	6	...	24	35	...	27	39	...	31	50	...	28	45	...
Eastern Europe	453	384	...	158	159	...	198	174	...	74	75	...	655	565	...	233	237	...

* Meals and solubles of aquatic animal origin

** Excluding China

14. Japan's catch of Alaska pollack, one of the most important food fish species in the country, was further reduced in U.S.S.R. waters in 1978. The agreed quota of 345 000 tons was equal to only about one third of Japan's catch in these waters in 1976. Supplies were augmented, however, by purchases at sea from Soviet fishing vessels at U.S.$ 157 per ton. Japan had fewer supplies of fish blocks available for export, but its exports of frozen fillets to the U.S.A. stayed at 16 000 tons, helped by price reductions to clear inventories. The Republic of Korea increased its exports of fish blocks to the U.S.A.

15. During 1978, the main stabilizing factor in the world whitefish market proved to be the hake fisheries. Argentinian catches increased by about 100 000 tons and exports from Argentina to the U.S.A. during the first few months of the year considerably exceeded those in 1977. Chile and Uruguay also greatly increased production and, consequently, their exports. The Cape hake fisheries in South African waters appear to be recovering and catches there rose by 30 000 tons to 130 000 tons in 1978.

16. Consumption of frozen whitefish in the U.S.A. increased in 1978. The consumption of cod blocks expanded by more than 10 percent during 1978 and they now account for nearly 50 percent of the total American block market. The retail rather than institutional trade must be given credit for the growth in the country's whitefish market. The sale of products in batter continues to be the major factor in the expansion of this trade.

17. The European whitefish market was kept relatively well supplied. The strength of some European currencies encouraged Scandinavian and Icelandic producers to supply Europe, especially Federal Republic of Germany and U.K., leaving the U.S.A. to be supplied primarily by Canada. This helped to counteract difficulties experienced by the European fleets arising partly from the failure of the EEC to agree on a Common Fishery Policy. Access by the German freezer fleet to Canadian waters, for example, was delayed. The smaller supply of frozen fish from this source was supplemented by higher imports of frozen saithe and hake fillets.

18. The wholesale price of cod blocks remained unchanged in the U.S.A., but the prices for cod fillets decreased slightly. Prices for hake blocks were also stable during the year, but prices for other fish blocks such as flounder increased.

19. The market for frozen whitefish is expected to remain relatively stable in 1979. Cod catches in Norway and Iceland will decrease because of new catch regulations. On the other hand, Canadian catches of whitefish will probably increase. Hake production will continue to expand, particularly off Argentina where a number of joint ventures for hake fishing, agreed in 1978, will be fully operational. Catches of whitefish species, particularly hake, in the North and Central East Pacific are also expected to increase during 1979. Prices should remain fairly firm with some increases expected for flounder fillets and blocks.

(b) Frozen tuna

20. The world tuna catch increased considerably during 1978 as compared with the previous year. The American domestic catch was 30 percent greater than in 1977. Japan's catches also showed significant increases: tuna landings in Yaizu, the leading tuna port, increased by nearly 20 percent. Skipjack contributed mainly to the increase. For example, the American domestic catch more than doubled and the Japanese catch in the South Pacific was 60 percent higher than in 1977. Very high tuna catches were also reported by other countries including Ghana, Mexico and the Philippines.

21. The frozen tuna trade increased during 1978. In spite of the good catches obtained by the U.S.A., imports went up by approximately 30 percent, mainly of yellowfin and skipjack. Japan, however, reduced its imports of skipjack and yellowfin by approximately 30 percent. Among the European countries, Italy continued to be the main importer of frozen tuna.

22. Mexico replaced Japan as the principal foreign supplier of tuna to the U.S.A. Mexico requested larger yellowfin catch quotas under the Inter-American Tropical Tuna Commission,

but subsequently withdrew from the Commission. While new arrangements for tuna fishing in the Eastern Pacific are being negotiated, American tuna vessels are required to obtain special permits to fish the Mexican 200-mile economic zone.

23. Increased supplies of tuna led to a general reduction in prices during 1978. In Japan, skipjack prices decreased from Yen 231 000 per ton in December 1977 to Yen 150 000 per ton in the same month in 1978. The reduction was less evident in the American market because of a decline in the U.S. dollar against the Japanese yen and other currencies, but even in the U.S.A. the prices of skipjack began to weaken towards the end of the year.

24. An adequate supply of tuna seems in prospect for 1979. Storage holdings were at peak levels at the beginning of the year. American packers expect skipjack supplies to continue to increase and prices to remain more or less at the 1978 level. Japanese catches, especially of skipjack, are expected to be below the 1978 level. In Europe a growing demand for tuna makes increased prices possible, but this may be counteracted by supplies of canned tuna from West African countries associated with the EEC and enjoying preferential access to its markets. Increased supplies from this source are expected to intensify competition on the European canned tuna market.

(c) Other frozen fish

25. A wide variety of frozen fish are included in this commodity group. The most important quantitatively are the sardine (including pilchard and sardinella), mackerel and horse mackerel, which are used both as raw material for further processing and for direct human consumption.

26. Catches of mackerel and horse mackerel were good in 1978. Supplies of frozen mackerel were enhanced by a fishing boom in U.K. waters. Tripartite arrangements between East European factory vessels, U.K. fishing vessels and trading companies boosted production from 187 000 tons in 1977 to 314 000 tons in 1978, making mackerel the most important single species in the U.K. catch. Most of the fish is destined for markets in Eastern Europe and West Africa; very little enters the domestic trade. In 1979, however, catches began to exceed planned quotas for the winter and spring fishery off the southwest coast and in early March, fishing was halted.

27. Supplies of sardine/pilchard decreased considerably in 1978 as a result of the collapse of the pilchard fisheries in Namibia. Good opportunities existed for exporting frozen sardine/pilchard, but few developing countries were able to take full advantage of the market, often because they could not meet quality requirements. Other countries preferred to export canned products rather than export the raw material.

28. Supplies of pilchard and mackerel are expected to be adequate in 1979. Increasing exports of frozen pilchard fillets from South America to the European canning industry were reported during the early months of the year. Prices are expected to remain stable, helped by the interchangeability of these products in some markets.

(d) Frozen shrimp

29. A strong demand for shrimp met with a slightly more restricted supply in 1978 as compared with 1977. Landings in both the U.S.A. and Mexico were down on the record catches obtained in 1977. In the U.S.A. shrimp prices rose sharply as a result, and storage inventories ended the year about one third lower than in 1977. In Japan, by contrast, shrimp prices in yen declined, but the favourable rate of exchange of the yen against the dollar led exporters to favour the Japanese market. Japan's imports of frozen shrimp increased by 15 percent in 1978, reaching a record of 144 000 tons, but U.S. imports fell by about 10 percent to 92 000 tons.

30. Present prices of shrimp in the U.S.A. seem to be reaching a level at which consumer resistance begins to develop against further increases. Towards the end of 1978, distributors

and importers became reluctant to buy at the prevailing prices, particularly of the larger sizes and IQF, fearing consumer resistance and substitution by other products.

31. In Japan, shrimp prices did not begin to increase until the end of November in response to very strong demand. Japanese consumers seem prepared to accept a high price level for shrimp which would indicate that Japan will continue to take an increasing share of the world shrimp market. This would be reinforced further if reductions in import duties of 4 to 5 percent ad valorem were to be followed by further concessions, as has been requested by the Association of South East Asian Nations (ASEAN).

32. The position in Europe showed some improvement. After the decline in landings in 1977, prices of shrimps and prawns increased enormously, but some recovery in catches in 1978 helped to stabilize prices.

(e) Cephalopods

33. In 1978, Japan continued to be the main market for the three species groups (squid, cuttlefish and octopus) listed under this heading. Japanese landings of squid, about 200 000 tons , were 10 percent higher than in 1977 and imports, at nearly 120 000 tons, were up by 60 percent. Imports of octopus also increased by 25 percent in 1978 reaching nearly 80 000 tons. Imports came mainly from Thailand and other Asian countries, but non-Asian countries also contributed. For example, Canada provided nearly 50 percent of the total squid imports to Japan during December 1978.

34. The development of squid fisheries continued in many regions. Argentina, for example, increased her catches, largely through joint ventures, from 3 000 tons in 1977 to almost 40 000 tons in 1978. Most of the catch was exported to Japan. Elsewhere, the East Atlantic cephalopod fishery advanced further providing supplies for the European market, mainly Spain and Italy. This trend is expected to continue in 1979. Morocco now has a fleet of new fishing vessels operating in the Eastern Central Atlantic while New Zealand approved joint ventures in October 1978 that will enable 37 vessels from Japan and 14 from the Republic of Korea to fish for squid within its 200-mile economic zone.

35. Squid prices in 1978 continued to rise, but good catches of squid and octopus in the middle of the year, the start of the main fishing season, caused a temporary set-back in the main markets - Japan and Italy.

36. Supplies of squid in 1979 are expected to be good, probably even better than in 1978. Processors and distributors in various parts of the world anticipate that demand will remain firm and is likely to expand. Squid prices are expected to rise in 1979 as a result of strong demand in Japan and the increasing acceptability of this commodity in other non-traditional markets.

(f) Dried fish

37. Various dried fish products continue to be of great significance for some developing countries. Regional trade in locally produced, dried (including smoke-dried) fish products has grown considerably in West Africa, although no statistical data are available.

38. The major trade flows for which records do exist are in stockfish and salt-dried whitefish from Northern Europe and Canada. In 1978, production of dried fish in Europe decreased considerably, but Canadian output expanded. Exports to West African countries, although of great importance in the past, have decreased in recent years because of price increases and the introduction of import restrictions. During 1978, however, imports of stockfish to Nigeria recovered slightly following special agreements between governments. On the other hand, trade in salt-dried fish to West Africa decreased considerably in 1978 as a result of the virtual suspension of imports into Angola. Norwegian exports, for example, decreased from 12 600 tons in 1977 to 2 100 tons in 1978. Nevertheless, good trading possibilities still exist for competitively priced dried fish. A number of countries, among them Sri Lanka,

Zaire, Brazil, the Dominican Republic and Jamaica, are known to be seeking additional supplies of low-cost dried fish products.

39. In general, the production trends observed in Europe and Canada in 1978 are expected to continue in 1979 although production costs and prices will be critical in determining sales.

(g) Canned fish

40. With the exception of herring and pilchard, world supplies of raw material for the canning industry were good in 1978.

41. Tuna canneries increased their production considerably, especially of light meat products. In the U.S.A., which absorbs more than 50 percent of world production of canned tuna, this type of pack reached record levels. Wholesale list prices in the U.S.A. were fairly steady in the first half of 1978, but canners began to give discounts or allowances for promotional purposes in order to increase sales without provoking cut-price competition. Production and sales of canned light meat tuna rose in Japan in 1978, a trend which is expected to continue in 1979. In general, wholesale prices in Japan remained at the 1977 level, but there were some decreases. Production and sales of canned tuna also increased in Europe in 1978.

42. A reduction in the availability of sardines and pilchards for canning caused a sharp fall in production among traditional suppliers of these products. The South African Republic, which in the past has exported around 3.2 million cases annually, had to import 0.5 million cases in 1978 to cover domestic consumption. Moroccan sardine landings for canning purposes have decreased since 1974 when stocks moved to more distant waters not easily accessible to the traditional fishing fleet. Foreign vessels working under contract were to maintain supplies, but in 1978, the canning industry operated at only 45 percent of its capacity. Nevertheless, supplies of canned sardines and similar species improved slightly on a world-wide basis in 1978 because of increased production by countries, such as Peru, that have only recently begun supplying the world market. Prices of canned sardine increased everywhere except in Japan during 1978 and are expected to continue upward in 1979.

43. Herring supplies were further diminished in 1978 with the closing of the North Sea and Scottish herring fisheries. In Federal Republic of Germany, which normally requires 250 000 tons of herring, only about 120 000 tons were available. Strong efforts are being made to market canned mackerel and to use sardine, pilchard and similar species as substitutes for herring.

44. The availability of mackerel for canned products was good world wide. Supplies of canned mackerel improved significantly in 1978, especially in the U.S.A. where sales of this product are improving. Prices for this low-cost food increased in the U.S.A., remained unchanged in Europe and decreased in Japan during 1978. No significant change in price is expected in Europe in 1979, but in the U.S.A. and Far East prices will probably rise.

45. Salmon canneries in the U.S.A. benefited from extraordinarily good catches in 1978. This was reflected in increased exports to the U.K., Canada and Japan, the main markets for this commodity. As a result of restricted catch quotas in the North Pacific, Japan recorded very low catches in 1978. It not only ceased to be an exporter but increased its imports of frozen salmon from 30 000 tons to 50 000 tons, the main supplier being the U.S.A. A case of botulism poisoning in August 1978 had serious repercussions on salmon consumption in the U.K. The incident received world-wide publicity which adversely affected the market in all countries except the U.S.A. and Canada. Consumption levels are expected to return to normal in 1979. Prices for canned salmon increased in 1978, especially in Japan. They will probably continue to increase in 1979.

(h) Fish meal

46. According to information available in March 1979, world fish meal production increased from 4.4 million tons in 1977 to approximately 4.9 million tons in 1978. The increase

resulted largely from higher catches of fish for reduction in Peru, Chile and the U.S.A. Production in the U.S.A. increased by approximately 30 percent. The Peruvian anchoveta catch in 1978 was 1.2 million tons, as compared to 0.8 million tons the previous year. However, other species such as sardine, horse mackerel and hake contributed more than 50 percent of the raw material for fish meal.

47. Japanese fish meal production continued to rise in 1978 and imports were reduced to half the level of 1977. Fish meal production in the other main producing countries such as Iceland, South Africa and Namibia increased slightly or remained at 1977 levels. Norwegian fish meal production was adversely affected by lower capelin catches. The 1977 capelin harvest, however, should be regarded as an exception which is unlikely to be repeated. Increasingly, supplies are coming from the blue whiting fisheries which contributed 120 000 tons in 1978. Japan continued to be the world's largest producer of fish meal followed by the U.S.S.R. and Peru.

48. Fish meal prices, which were lower in 1978 than 1977, showed a strong downward trend throughout the year. Prices for bulk meal declined from U.S.$ 450 per ton at the beginning of the year to U.S.$ 390 per ton in December 1978 (64/65 percent c.i.f. Hamburg). Prices were slightly higher in Japan than the European and U.S. average, but they also fell as a result of the good domestic supply.

49. The downward trend of fish meal prices in the international market resulted from higher world production coupled with a sharp fall in Japanese imports. Furthermore, prices of competing products, especially soybean meal, continued at the low level recorded at the end of 1977.

50. World supplies of fish meal will probably remain at the same level in 1979. Production in Norway is likely to fall further or, at best, to remain stable. The increased catches of blue whiting are not expected to compensate fully for the reduced availability of capelin which Norway must now share with the U.S.S.R. Anchoveta catches in Peru could improve further, but an increasing proportion of other species is being diverted to the food fish market. As a result, Peruvian production of fish meal is not expected to increase greatly. Continued growth in production by the U.S.S.R. and Japan is anticipated, but it will be used mainly for domestic consumption. A similar situation is expected to obtain in other countries increasing their production of fish meal.

51. The forecast for fish meal entering the international market in 1979 would usually be expected to cause prices to rise, but this pressure is likely to be counter-balanced by the supplies of competitive products which may well outstrip demand. As a result, a fairly steady price level is anticipated for fish meal during 1979.

(i) Fish oil

52. The fall in whale and sperm oil production has reduced the total world production of marine oil in recent years. Fish oil production, however, has remained relatively stable. According to preliminary figures, the 1978 fish oil production exceeded one million tons, slightly higher than the 985 000 tons obtained in 1977. Norwegian fish oil production suffered a serious setback dropping from 224 000 tons in 1977 to approximately 140 000 tons in 1978. Danish fish oil production also decreased. These decreases were compensated for by a substantial increase, from 60 000 tons in 1977 to 135 000 tons in 1978 in the U.S.A., made possible by large catches of mehaden and improved oil yields. Japanese fish oil production was also rising strongly. More moderate increases in production were obtained in Peru, Chile, Iceland and other countries.

53. Larger quantities of fish oil were offered on the international market in 1978 than in 1977. The most important exporters were Japan, with about 120 000 tons, and the U.S.A., with about 90 000 tons. International price quotation, particularly in Europe, were moderately down from the high level recorded in 1977. The decline might have been more pronounced but for a sharp increase in soybean oil prices prompted by an increase in demand (particularly

from China and West Asian countries), a crop failure in Brazil, and a reduction in palm oil output in Malaysia and oilseed production in the U.S.S.R., India, Philippines and Senegal.

54. Assuming fish oil production does not increase in the coming years, its share of the world market for oils and fats will continue to fall. If the quality can be maintained or even improved, fish oil may cease to be used as a cheap substitute for other oils and command a better price in its own right. In the short term, however, prices are expected to remain at or close to their present level with perhaps a slight decline in 1979.

GENERAL OUTLOOK

55. Despite forecasts to the contrary, the establishment of the 200-mile EEZ affected the world fish harvest only in 1977. The total world catch in 1978 is expected to be about 75 million tons. In 1979 it will probably be about the same or possibly a little more as a result of further expansion in the exploitation of stocks such as cephalopods, hake, mackerel and blue whiting.

56. Efforts by established fishing nations to ensure the full operation of their fleets through joint ventures will be a feature of 1979. The trend, started some years ago, toward directing an increasing proportion of fish production into the food fish market is also likely to continue. With the growing demand for fish meal in the producer countries, a further decline in the international trade in this commodity seems probable.

57. The international trade in fish products for human consumption will continue to rise possibly at an accelerating rate. This expansion will reflect the declining domestic production in some major fish consuming countries such as Japan and Western Europe which are becoming increasingly dependent upon imports to supply their markets. As supplies become more diversified with the entry of more coastal States into fish production and trade, a more organized international market will be required in order to ensure equitable opportunities for developing and developed countries alike.

Annex

WHOLESALE PRICES FOR SOME FISHERY PRODUCTS

Products	Monthly average prices					Annual average prices				
	Year	Jan.	April	July	Oct.	1974	1975	1976	1977	1978
U.S.A. (U.S.$/t)										
Frozen fish blocks, cod[a]	1977	2 015.0	2 112.0	2 204.6	2 204.6	1 463.8	1 272.0	1 651.2	2 156.1	2 204.6
	1978	2 204.6	2 204.6	2 204.6	2 204.6					
Frozen fish blocks pollack	1977	1 146.4	1 177.2	1 413.1	1 461.6	963.4	815.7	1 018.5	1 331.6	1 544.3
	1978	1 477.1	1 483.7	1 543.2	1 653.4					
Frozen fish blocks whiting	1977	1 003.1	1 014.1	1 177.2	1 274.3	877.4	820.1	934.7	1 199.3	1 319.9
	1978	1 318.3	1 287.5	1 322.8	1 344.8					
Frozen fish blocks Alaska pollack	1977	1 080.2	-	1 433.0	1 479.3	-	747.4	948.0	1 338.2	1 513.0
	1978	1 477.1	1 477.1	1 543.2	1 543.2					
Frozen fish fillets cod	1977	1 781.3	2 045.9	2 030.4	1 984.1	1 574.1	1 377.9	1 580.7	2 008.4	1 997.4
	1978	2 094.4	2 023.8	1 973.1	1 940.0					
Warm water lobster tail (6-8 oz)	1977	13 051.0	13 139.3	12 963.0	12 455.9	10 515.0	10 185.0	12 985.0	12 854.5	14 770.7
	1978	12 588.2	13 073.2	15 233.7	16 313.9					
Shrimps (31-40) raw, headless[b]	1977	7 054.6	7 297.2	5 974.4	5 599.6	3 638.0	5 225.0	7 121.0	6 448.4	6 937.1
	1978	5 842.2	6 084.6	6 613.8	7 936.5					
Canned salmon (U.S.$/case) pink (48 x 1lb)	1977	68.0	65.0	67.0	69.0	71.0	69.6	68.5	67.0	66.0
	1978	66.0	66.0	66.0	66.0					
Canned tuna (U.S.$/case) light chunk (48 x 6½ oz)	1977	29.5	29.5	33.0	31.3	24.2	24.8	27.6	29.5	(34.3)
	1978	34.0	34.0	34.5	...					
Canned sardines (U.S.$/case) Maine (100 x ¼ lb)	1977	23.1	24.0	24.0	25.1	20.2	22.5	22.3	24.3	(28.7)
	1978	27.1	28.1	30.1	...					
GERMANY (Fed.Rep.of) (U.S.$/t)										
Fish meal - 65% protein	1977	466.3	483.3	446.4	456.1	372.1	245.3	376.0	453.5	409.6
	1978	451.3	415.9	400.1	383.2					
Fish oil, crude any origin	1977	443.1	476.2	434.3	449.7	557.8	343.9	372.6	471.8	451.9
	1978	427.7	557.8	465.2	436.5					
ITALY - Milano ('000 Lit./t)										
Frozen sharks - porbeagle	1977	3 431.0	2 331.0	2 500.0	2 803.0	1 456.0	1 662.0	2 462.0	2 671.0	3 800.3
	1978	2 950.0	4 713.0	3 850.0	3 538.0					
Frozen cuttlefish	1977	2 044.0	2 381.0	1 925.0	2 233.0	761.0	853.0	1 511.0	1 981.0	2 141.0
	1978	1 600.0	1 950.0	2 300.0	2 168.0					
Frozen squid	1977	2 313.0	2 700.0	2 550.0	2 406.0	1 057.0	1 186.0	2 001.0	2 465.0	2 865.1
	1978	2 525.0	2 600.0	3 075.0	2 887.5					
Canned chub mackerel (Lit./440 g can)	1977	340.0	410.0	425.0	435.0	272.0	307.0	323.0	419.0	471.8
	1978	475.0	500.0	470.0	470.0					
Salted anchovy	1977	2 700.0	2 700.0	2 750.0	2 900.0	1 516.0	1 449.0	1 743.0	2 700.0	2 790.9
	1978	2 900.0	2 900.0	2 900.0	2 700.0					
Stockfish	1977	3 850.0	5 150.0	-	-	2 441.0	3 750.0	4 146.0	5 100.0	4 900.0
	1978	-	-	-	4 900.0					
JAPAN ('000 Yen/t)										
Alaska pollack, fresh[c]	1977	57.0	78.0	90.0	59.0	26.0	27.0	37.0	78.0	(79.0)
	1978	120.0	82.0	26.0	39.0					
Skipjack, whole frozen[d]	1977	226.0	323.0	317.0	247.0	167.0	185.0	217.0	276.0	(178.0)
	1978	231.0	203.0	143.0	156.0					
Yellowfin tuna, frozen[c]	1977	513.0	598.0	586.0	497.0	482.0	504.0	482.0	533.0	(435.0)
	1978	439.0	451.0	443.0	...					
Mackerel, whole frozen[e]	1977	185.0	203.0	172.0	160.0	121.0	108.0	154.0	166.0	(117.0)
	1978	125.0	120.0	111.0	102.0					
Shrimps, brown frozen Mexican (31-40)[e]	1977	3 100.0	3 150.0	2 900.0	2 600.0	2 219.0	2 580.0	3 023.0	2 800.0	(2 050.0)
	1978	2 200.0	2 150.0	2 000.0	1 850.0					
Squid, frozen[e]	1977	592.0	573.0	525.0	617.0	423.0	410.0	477.0	566.0	(583.0)
	1978	580.0	522.0	676.0	...					

a/ Prices to processors, importers and brokers at Boston, Gloucester and New Bedford
b/ Prices at New York
c/ Average prices of 66 fishing ports
d/ Average ex-vessel price at Yaizu
e/ Tokyo wholesale market